

REMARKS

Amendments to the Claims

In an effort to move this case forward, Applicants amend claim 18 in this Response. Claim 18 is amended to address the Office Action's objection to claim 18. Applicants submit that the amendment does not introduce any new matter into the specification and submit that the claims are in condition for allowance.

Objections to the Drawings

The Office Action at pages 2-3 objects to the drawings in the present application stating:

The drawings are objected to because figures 2 and 3 all references are not labeled. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application...

That is, the Office Action requires corrected drawing sheets so that reference characters in the drawings of the present application can be labeled. The Office Action, however, does not cite any legal authority as the basis for making such a requirement, and in fact, no such authority exists. Applicants respectfully note in response that 37 C.F.R. § 1.84 governs the standards for presenting drawings in patent applications. Section 1.84 requires that reference characters mentioned in the specification appear in the drawings, and reference characters not mentioned in the specification not appear in the drawings. Section 1.84, however, does not include language that requires reference characters in the drawings to be labeled.

Applicants respectfully note that the drawings of the present application are in compliance with 37 C.F.R. § 1.84 as all reference characters used in the drawings of the present application are mentioned and specifically described in Applicants' original specification. Because the drawings of the present application are in compliance with 37

C.F.R. § 1.84, the Office Action's objection should be withdrawn and the drawings should be allowed. Applicants respectfully request reconsideration of the drawings.

Objections to the Claims

The Office Action at page 3 objects to the claims of the present application, stating:

3. Claim 7 is objected to because of the following informalities: the term "interconections" is misspelled.
4. Claim 18 is objected to because of the following informalities: claim 18 depends on a succeeding claim. Appropriate correction is required.

In response to the Office Action's objection to claim 7, Applicants respectfully decline to amended claim 7 in the present application in view of the potential risk of prosecution history estoppel within the meaning of *Festo Corp. v. Shoketsu Kinzoku Kogyokabushiki Co.*, 122 S. Ct. 1831, 535 U.S. 722, 152 L. Ed. 2d 944, 62 U.S.P.Q.2d 1705 (2002). The plain meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention. *Manual of Patent Examination and Procedure* § 2111.01 II (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc); *Sunrace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302, 67 USPQ2d 1438, 1441 (Fed. Cir. 2003); *Brookhill-Wilk I, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 67 USPQ2d 1132, 1136 (Fed. Cir. 2003)). A person of ordinary skill in the art would understand the claim term "interconections" to mean "interconnections," given that the term "interconnections" is used 25 times in Applicants' original specification. Because of the risks associated with amending the claims of the present application, and because "interconections" would have a plain meaning to one of ordinary skill in the art, Applicants respectfully decline to amend claim 7 in the present application. Applicants respectfully request that the objection to claim 7 be withdrawn.

In response to the objection to claim 18, Applicants' amend claim 18 in this paper to depend from claim 15 rather than claim 19. Applicants submit that the present amendments do not introduce any new matter into the present application. Applicants respectfully request that the objection to claim 18 be withdrawn.

Claim Rejections – 35 U.S.C. § 102 Over Leigh

Claims 1-2, 8-10, and 15-17 stand rejected under 35 U.S.C. § 102 as being anticipated by Leigh, *et al.* (U.S. Publication No. 2003/0158940) (hereafter, 'Leigh'). To anticipate claims 1-2, 8-10, and 15-17 under 35 U.S.C. § 102, Leigh must disclose and enable each and every element and limitation recited in the claims of the present application. As explained below, Leigh does not disclose and enable each and every element and limitation recited in the claims of the present application and therefore does not anticipate the claims of the present application.

Leigh Does Not Disclose Each and Every Element Of Claim 1 Of The Present Application

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As explained in more detail below, Leigh does not disclose each and every element of claim 1, and Leigh therefore cannot be said to anticipate the claims of the present application within the meaning of 35 U.S.C. § 102.

Independent claim 1 recites:

1. A scalable data processing system, including:
 - a first set of central processing units;
 - a first system memory accessible to the first set of processors;

scalability logic to connect the data processing system to a second data processing system, having a second set of processors and a second system memory, to form a scaled system;

a set of scalability ports connected to the scalability logic to receive scalability cables connecting the first system to the second system; and

system management to cause each of the system's scalability ports to issue an identifiable signal and further configured to detect the reception of an identifiable signal, sent by another system, by any of the scalability ports and to report the reception of the signal to a system management of the second system to determine which ports of the two systems are connected by the cable.

**Leigh Does Not Disclose Scalability Logic
To Connect The Data Processing System
To A Second Data Processing System,
Having A Second Set Of Processors
And A Second System Memory,
To Form A Scaled System**

The Office Action takes the position that Leigh at paragraph 0029 and figure 1c discloses the third element of claim 1: scalability logic to connect the data processing system to a second data processing system, having a second set of processors and a second system memory, to form a scaled system. Applicants respectfully note in response, however, that what Leigh at paragraph 0029, in fact discloses is:

[0029] The four-ILB embodiment shown in FIG. 1(c) can be used as an example to describe the zone-based load balancing method. Assume that ILBs 10 and 20 belong to zone-1 and ILBs 30 and 50 belong to zone-2 and that ILBs 10 and 50 are the primary master ILBs for their respective zones. Simpler load-balancing algorithms, such as a basic round-robin method, may be used when the slave ILBs do not overlap across the zones.

In the example of FIG. 1(c), slave ILB 20 is in zone-1 only and slave ILB 30 is in zone-2 only, although it is possible to assign ILB 20 and ILB 30 to be in both zone-1 and zone-2. A primary master ILB, e.g., ILB 10, can collaborate with another primary master ILB, e.g., ILB 50, for load sharing. Each primary master ILB has its own zone as its primary zone and the collaborating zone as its secondary zone. A primary master ILB may decide to cross the zone boundaries and send some of its load to the servers in another zone based on factors such as its host server's workload index, network data traffic level, server health, and ILB health. "Server health" constitutes functional statuses on the server host's critical subsystem components, such as CPU(s), cache memory, system memory, and disks. "ILB health" constitutes functional statuses on the ILB's components, such as processors, memory buffers, ASICs, and FPGAs.

That is, Leigh at paragraph 0029, discloses zone-based load balancing implemented with Internal Load Balancers or 'ILBs.' Leigh's ILBs are special purpose integrated circuits such as field programmable gate arrays ('FPGAs') or application specific integrated circuits ('ASICs'). Leigh's load balancing with ILBs does not disclose scalability logic connecting one data processing system to a second data processing system as claimed here. It is clear to a person of skill in the art that load balancing as disclosed in Leigh simply has nothing to do with scalability logic for connections among systems. In Leigh, the servers among whom load balancing is implemented are expressly already connected in a network, therefore requiring no scalability logic for connections as claimed in the present application. Indeed, there is only one substantive mention of scaling in Leigh, in paragraph 0057, addressing only sleeping and waking among servers already connected in a network. On the face of Leigh, therefore, there would be no reason for a person of skill in the art to expect to derive anything regarding scalability for connections among systems from Leigh, which is clearly about load balancing and not about scalability.

In addition to the fact that Leigh generally discloses nothing about scalability logic connecting data processing systems, there is another more specific reason why Leigh does not disclose the third element of claim 1: Leigh does not disclose a 'scaled system' as claimed in the present application. A 'scaled system' is defined in Applicants' original specification at page 4, lines 4-7, as a system in which two or more symmetric multiprocessor ("SMP") systems are interconnected to form a larger multiprocessor

system capable of functioning under a single operating system image. Neither at the reference point cited by the examiner nor anywhere else in Leigh does Leigh disclose a scaled system capable of functioning under a single operating system image. In fact, the terms “image,” “operating system,” and “operating system image” do not appear at any point in Leigh – not even once. For these reasons, a person of skill in the art would understand a ‘scaled system,’ as the term is used in the present claims read in view of the specification, to be interconnected SMPs capable of running under a single operating system image. Moreover, it is clear to a person of skill in the art that all the servers described in Leigh are assumed to be operating their own separate operating systems. Because Leigh does not disclose a ‘scaled system’ as claimed in the present application, Leigh cannot possibly disclose scalability logic to connect the data processing system to a second data processing system, having a second set of processors and a second system memory, to form a ‘scaled system’ as claimed here.

In addition to the fact that Leigh does not disclose a scaled system, there is another reason that Leigh does not disclose the third element of claim 1 in the present application: Leigh does not disclose the ‘data processing system’ claimed in the present application. The ‘data processing system’ as defined in Applicants’ original specification at page 4, lines 11-12, includes a Processor Scalability and Cache control unit which controls access to the scalability ports in the data processing system. A person of skill in the art therefore would understand a ‘data processing system,’ as the term is used in the present claims read in view of the specification, to include a Processor Scalability and Cache control unit which controls access to scalability ports. Leigh does not disclose a data processing system containing scalability ports or a data processing system containing a Processor Scalability and Cache control unit which controls access to the scalability ports. Because Leigh does not disclose a data processing system as claimed in the present application, Leigh cannot possibly disclose scalability logic to connect the data processing system to a second data processing system, having a second set of processors and a second system memory, to form a scaled system. Because Leigh does not disclose each and every element and limitation of Applicants’ claims, Leigh does not anticipate Applicants’ claims, and the rejections under 35 U.S.C. § 102 should be withdrawn.

**Leigh Does Not Disclose A Set Of Scalability
Ports Connected To The Scalability Logic
To Receive Scalability Cables Connecting
The First System To The Second System**

The Office Action takes the position that Leigh at paragraph 0029 and figures 1a-1d, discloses the fourth element of claim 1: a set of scalability ports connected to the scalability logic to receive scalability cables connecting the first system to the second system. Applicants respectfully note in response, however, that as discussed above, Leigh paragraph 0029 in fact discloses zone-based load balancing implemented with ILBs. Leigh's zone-based load balancing implemented with ILBs does not disclose a set of scalability ports connected to the scalability logic to receive scalability cables connecting the first system to the second system as claimed in the present application. Leigh does not disclose scalability cables, scalability ports, or scalability logic. Scalability cables are distinct from network cables, such as Ethernet cables, that are used for connecting machines within a local area network. *See*, Applicants' original specification at page 1, lines 16-18. Neither at the reference point cited by the Examiner nor anywhere else in Leigh does Leigh disclose scalability cables. Leigh merely discloses that servers are connected through the network ports of Leigh's internal load balancers, without making any disclosure regarding the cables that are used to connect Leigh's servers. Because Leigh does not disclose anything regarding the cables used to connect Leigh's servers, Leigh cannot disclose scalability cables.

In addition to the fact that Leigh does not disclose scalability cables, there is another reason that Leigh does not disclose the fourth element of claim 1: Leigh does not disclose scalability ports. Scalability ports, as claimed in the present application, receive scalability cables connecting two systems. As discussed above, Leigh does not disclose scalability cables. Because Leigh does not disclose scalability cables, Leigh cannot possibly disclose scalability ports that receive scalability cables, as claimed here. Because Leigh does not disclose scalability cables or scalability ports, Leigh cannot disclose a set of scalability ports connected to the scalability logic to receive scalability

cables connecting the first system to the second system as claimed in the present application.

In addition to the fact that Leigh does not disclose scalability cables or scalability ports, there is another reason that Leigh does not disclose the fourth element of claim 1: Leigh does not disclose scalability logic. Scalability logic, as claimed in the present application, is connected to scalability ports. As discussed above, Leigh does not disclose scalability ports. Because Leigh does not disclose scalability ports, Leigh cannot possibly disclose scalability logic connected to scalability ports, as claimed here. Because Leigh does not disclose scalability cables, scalability ports, or scalability logic, Leigh cannot disclose a set of scalability ports connected to the scalability logic to receive scalability cables connecting the first system to the second system as claimed in the present application. Because Leigh does not disclose each and every element and limitation of Applicants' claims, Leigh does not anticipate Applicants' claims, and the rejections under 35 U.S.C. § 102 should be withdrawn.

**Leigh Does Not Disclose System Management
To Cause Each Of The System's Scalability
Ports To Issue An Identifiable Signal And
Further Configured To Detect The Reception
Of An Identifiable Signal As Claimed In
The Present Application**

The Office Action takes the position that Leigh at paragraphs 30 and 47, and Figures 1a - 1d, discloses the fifth element of claim 1: system management to cause each of the system's scalability ports to issue an identifiable signal and further configured to detect the reception of an identifiable signal, sent by another system, by any of the scalability ports and to report the reception of the signal to a system management of the second system to determine which ports of the two systems are connected by the cable. Applicants respectfully note in response, however, that what Leigh at paragraph 30, in fact discloses is:

[0030] As an example of zone boundary crossing, in FIG. 1(c), after primary master ILB 10 has distributed the incoming load from network segment 80 to a predefined saturation level on the host servers associated with ILB 10 and ILB 20 in zone-1, ILB 10 may interrogate the other primary master, ILB 50 in zone-2, to possibly accept future incoming loads on network segment 80. If ILB 50 acknowledges the load shedding request from ILB 10, then ILB 50 provides ILB 10 with a list of ILBs that can accept the load and with the load-shedding conditions. The load-shedding conditions may include information such as absolute time interval, load-shed check timer value, and number of loads. An example of "absolute time interval" is a wall-clock time interval preset by system administrators based on the known load condition, such as during the first two hours of every weekday, or every business day at lunch hours. An example of "load-shed check timer value" is a number of hours or minutes, chosen by system administrators, to be set in a register and counted down. This timer value can be set at the time when a load reaches a predefined load index threshold or it can be set periodically. When the timer value has counted down, the corresponding ILB will check the load condition with respect to its resource capacity to determine whether or not it should notify the primary master ILB (if it is not one itself) to redirect the load to another ILB. If ILB 10 sheds its load while complying with the load-shedding conditions, it will stop the load-shedding activity upon a load-shed-abort signal from ILB 50. ILB 50 may issue this load-shed-abort signal to ILB 10 when the servers whose loads are being shed fall below a predefined resource saturation threshold.

And what Leigh at paragraph 0047 in fact discloses is:

[0047] At the beginning of the topology discovery algorithm, each ILB will command its individual ports to broadcast a data packet known as a roll-call-1-query packet. Each ILB port will respond to the roll-call-1-query packet with a roll-call-1-response packet that includes information such as its port address, the associated ILB ID, and the associated host server ID. Since this query packet is comprehensible only by a port on an ILB, a port will know whether it is connected to another ILB port, to an external network, or to nothing at all. After this step, each port knows the ID of the port or ports to which it is directly connected. For the topologies shown in FIGS. 1(a) through 1(d) where the ILBs are interconnected directly to each other rather than through a switch, each ILB port knows the other ILB port it is connected to, if any. For example, in FIG. 1(b), ports 12 and 56 know that they are connected to external networks and ports 14, 16, 22, 26, 52, and 54 know that they are connected to the corresponding ports on the other ILBs, i.e., to ports 54, 22, 16, 52, 26, 14, respectively. Port 24 knows it is not connected.

That is, Leigh at paragraphs 30 and 47 discloses a topology detection algorithm that broadcasts a packet and receives a responsive packet. Leigh's topology detection algorithm that broadcasts a packet and receives a responsive packet does not disclose system management with scalability ports as claimed in the present application. In particular, Leigh does not disclose scalability ports. An identifiable signal, according to the claims in the present application, is broadcast and received through the scalability port of a system. Not disclosing a scalability port, Leigh cannot possibly be said to disclose system management using scalability ports as claimed in the present application. Because Leigh does not disclose each and every element and limitation of Applicants' claims, Leigh does not anticipate Applicants' claims, and the rejections under 35 U.S.C. § 102 should be withdrawn.

**Leigh Does Not Disclose Each and Every Element
Of Claim 8 Of The Present Application**

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). As explained in more detail below, Leigh does not disclose each and every element of claim 8, and Leigh therefore cannot be said to anticipate the claims of the present application within the meaning of 35 U.S.C. § 102.

Independent claim 8 recites:

8. A method of determining scalability cabling between at least two scalable data processing systems, comprising:

driving an identifiable signal on a first scalability port of a first system;

responsive to receiving the identifiable signal by a second system, determining which scalability port of the second system received the distinctive signal;

informing the first system of the reception of the distinctive signal by the determined scalability port of the second system and recording the first scalability port of the first system and the scalability port of the second system as being connected by a scalability cable.

**Leigh Does Not Disclose Driving
An Identifiable Signal On A First
Scalability Port Of A First System**

The Office Action takes the position that Leigh at paragraph 0030 discloses the first element of claim 8: driving an identifiable signal on a first scalability port of a first system. Applicants respectfully note in response, however, that what Leigh at paragraph 0030, in fact discloses is:

[0030] As an example of zone boundary crossing, in FIG. 1(c), after primary master ILB 10 has distributed the incoming load from network segment 80 to a predefined saturation level on the host servers associated with ILB 10 and ILB 20 in zone-1, ILB 10 may interrogate the other primary master, ILB 50 in zone-2, to possibly accept future incoming loads on network segment 80. If ILB 50 acknowledges the load shedding request from ILB 10, then ILB 50 provides ILB 10 with a list of ILBs that can accept the load and with the load-shedding conditions. The load-shedding conditions may include information such as absolute time interval, load-shed check timer value, and number of loads. An example of "absolute time interval" is a wall-clock time interval preset by system administrators based on the known load condition, such as during the first two hours of every weekday, or every business day at lunch hours. An example of "load-shed check timer value" is a number of hours or minutes, chosen by system administrators, to be set in a register and counted down. This timer value can be set at the time when a load reaches a predefined load index threshold or it can be set periodically. When the timer value has counted down, the corresponding ILB will check the load condition with respect to its resource capacity to determine whether or not

it should notify the primary master ILB (if it is not one itself) to redirect the load to another ILB. If ILB 10 sheds its load while complying with the load-shedding conditions, it will stop the load-shedding activity upon a load-shed-abort signal from ILB 50. ILB 50 may issue this load-shed-abort signal to ILB 10 when the servers whose loads are being shed fall below a predefined resource saturation threshold.

That is, Leigh at paragraph 0030, discloses distributing network loads across servers that are in different zones of a network. Leigh's distributing network loads across servers that are in different zones of a network does not disclose driving an identifiable signal on a first scalability port of a first system because Leigh does not disclose scalability ports. Scalability ports, as defined in Applicants' original specification at page 2, lines 5-7, receive scalability cables. As discussed above, Leigh does not disclose scalability cables. Because Leigh does not disclose scalability cables, Leigh cannot possibly disclose scalability ports that receive scalability cables, as claimed here. Because Leigh does not disclose scalability ports as claimed in the present application, Leigh cannot possibly disclose driving an identifiable signal on a first scalability port of a first system as claimed here.

In addition to the fact that Leigh does not disclose the first element of claim 8 because Leigh does not disclose scalability ports as claimed here, for identical reasons, Leigh also does not disclose the remaining elements of claim 8. Each remaining element of claim 8 recites a scalability port. Therefore, Leigh cannot possibly disclose the remaining elements of claim 8 because Leigh does not disclose a scalability port as claimed here. Because Leigh does not disclose each and every element and limitation of Applicants' claims, Leigh does not anticipate Applicants' claims, and the rejections under 35 U.S.C. § 102 should be withdrawn.

**Leigh Does Not Enable Each and
Every Element Of The Claims
Of The Present Application**

Not only must Leigh disclose each and every element of the claims of the present application within the meaning of *Verdegaal* in order to anticipate Applicants' claims,

but also Leigh must be an enabling disclosure of each and every element of the claims of the present application within the meaning of *In re Hoeksema*. In *Hoeksema*, the claims were rejected because an earlier patent disclosed a structural similarity to the Applicant's chemical compound. The court in *Hoeksema* stated: "We think it is sound law, consistent with the public policy underlying our patent law, that before any publication can amount to a statutory bar to the grant of a patent, its disclosure must be such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention." *In re Hoeksema*, 399 F.2d 269, 273, 158 USPQ 596, 600 (CCPA 1968). The meaning of *Hoeksema* for the present case is that unless Leigh places Applicants' claims in the possession of a person of ordinary skill in the art, Leigh is legally insufficient to anticipate Applicants' claims under 35 U.S.C. § 102. As explained above, Leigh does not disclose each and every element and limitation of independent claims 1 and 8 of the present application. Because Leigh does not disclose each and every element, Leigh cannot possibly place the elements and limitations of the independent claims in the possession of a person of ordinary skill in the art. Leigh cannot, therefore, anticipate claims 1 and 8 of the present application.

Relations Among Claims

Independent claim 15 is a computer program product claim for determining scalability cabling between at least two scalable data processing systems corresponding to independent method claim 8. For the same reasons that Leigh does not disclose or enable a method for determining scalability cabling between at least two scalable data processing systems, Leigh also does not disclose or enable computer program products for determining scalability cabling between at least two scalable data processing systems corresponding to independent claim 15. Independent claim 15 is therefore patentable and should be allowed.

Claims 2, 9-10, and 16-17 depend from independent claims 1, 8, and 15. Each dependent claim includes all of the limitations of the independent claim from which it depends. Because Leigh does not disclose or enable each and every element of the independent

claims, Leigh does not disclose or enable each and every element of the dependent claims of the present application. As such, claims 2, 9-10, and 16-17 are also patentable and should be allowed.

Claim Rejections – 35 U.S.C. § 103 Over Leigh In View Of Nakamura

Claims 3, 6-7, 11-12, 14, 18-19, and 21 stand rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Leigh in view of Nakamura, *et al.* (U.S. Publication No. 2004/0057448) (hereafter, 'Nakamura'). The question of whether Applicants' claims are obvious or not is examined in light of: (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, including commercial success, long felt but unsolved needs, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 2 (U.S. April 30, 2007). Although Applicants recognize that such an inquiry is an expansive and flexible one, the Office Action must nevertheless demonstrate a prima facie case of obviousness to reject Applicants' claims for obviousness under 35 U.S.C. § 103(a). *In re Khan*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). To establish a prima facie case of obviousness, the proposed combination of the references must teach or suggest all of the claim limitations of dependent claims 3, 6-7, 11-12, 14, 18-19, and 21. *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974). Dependent claims 3, 6-7, 11-12, 14, 18-19, and 21 depend from independent claims 1, 8, and 15 and include all the limitations of the independent claims from which they depend. In rejecting dependent claims 3, 6-7, 11-12, 14, 18-19, and 21, the Office Action relies on Leigh as disclosing each and every element of independent claims 1, 8, and 15. As shown above, Leigh in fact does not disclose each and every element of independent claims 1, 8, and 15. Because Leigh does not disclose each and every element of independent claims 1, 8, and 15, the combination of Leigh and Nakamura cannot possibly disclose each and every element of dependent claims 3, 6-7, 11-12, 14, 18-19, and 21. The proposed combination of Leigh and Nakamura, therefore, cannot establish a prima facie case of obviousness, and the rejections 35 U.S.C. § 103(a) should be withdrawn.

**Claim Rejections – 35 U.S.C. § 103 Over Leigh In
View Of Nakamura And Further In View Of Vegter**

Claim 4 stands rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Leigh and Nakamura further in view of Vegter (U.S. Patent No. 6,286,073) (hereafter, 'Vegter'). The question of whether Applicants' claim is obvious or not is examined in light of: (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, including commercial success, long felt but unsolved needs, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 2 (U.S. April 30, 2007). Although Applicants recognize that such an inquiry is an expansive and flexible one, the Office Action must nevertheless demonstrate a prima facie case of obviousness to reject Applicants' claims for obviousness under 35 U.S.C. § 103(a). *In re Khan*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). To establish a prima facie case of obviousness, the proposed combination of the references must teach or suggest all of the claim limitations of dependent claim 4. *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974). Dependent claim 4 depends from independent claim 1 and includes all the limitations of the independent claim from which it depends. In rejecting dependent claim 4, the Office Action relies on Leigh as disclosing each and every element of independent claim 1. As shown above, Leigh in fact does not disclose each and every element of independent claim 1. Because Leigh does not disclose each and every element of independent claim 1, the combination of Leigh, Nakamura, and Vegter cannot possibly disclose each and every element of dependent claim 4. The proposed combination of Leigh, Nakamura, and Vegter, therefore, cannot establish a prima facie case of obviousness, and the rejections 35 U.S.C. § 103(a) should be withdrawn.

Claim Rejections – 35 U.S.C. § 103 Over Leigh In View Of Vegter

Claims 5, 13, and 20 stand rejected for obviousness under 35 U.S.C. § 103(a) as being unpatentable over Leigh in view of Vegter. The question of whether Applicants' claims

are obvious or not is examined in light of: (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; (3) the level of ordinary skill in the art; and (4) any relevant secondary considerations, including commercial success, long felt but unsolved needs, and failure of others. *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 2 (U.S. April 30, 2007). Although Applicants recognize that such an inquiry is an expansive and flexible one, the Office Action must nevertheless demonstrate a prima facie case of obviousness to reject Applicants' claims for obviousness under 35 U.S.C. § 103(a). *In re Khan*, 441 F.3d 977, 985-86 (Fed. Cir. 2006). To establish a prima facie case of obviousness, the proposed combination of the references must teach or suggest all of the claim limitations of dependent claims 5, 13, and 20. *In re Royka*, 490 F.2d 981, 985, 180 USPQ 580, 583 (CCPA 1974). Dependent claims 5, 13, and 20 depend respectively from independent claims 1, 8, and 15, and include all the limitations of the independent claims from which they depend. In rejecting dependent claim 5, 13, and 20, the Office Action relies on Leigh as disclosing each and every element of independent claims 1, 8, and 15. As shown above, Leigh in fact does not disclose each and every element of independent claims 1, 8, and 15. Because Leigh does not disclose each and every element of independent claims 1, 8, and 15, the combination of Leigh and Vegter cannot possibly disclose each and every element of dependent claims 5, 13, and 20. The proposed combination of Leigh and Vegter, therefore, cannot establish a prima facie case of obviousness, and the rejections 35 U.S.C. § 103(a) should be withdrawn.

Conclusion

Claims 1-2, 8-10, and 15-17 stand rejected under 35 U.S.C. § 102 as being anticipated by Leigh. Leigh does not disclose and enable each and every element of Applicants' claims. Leigh therefore does not anticipate Applicants' claims. Claims 1-2, 8-10, and 15-17 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 1-2, 8-10, and 15-17.

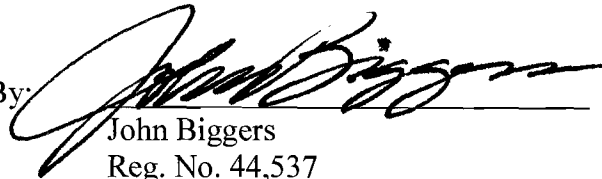
Claims 3-7, 11-14, and 18-21 stand rejected under 35 U.S.C. § 103 as obvious over Leigh in combination with Nakamura or Vetger. The combination of Leigh, Nakamura, or Vetger does not teach or suggest each and every element of Applicants' claims. Claims 3-7, 11-14, and 18-21 are therefore patentable and should be allowed. Applicants respectfully request reconsideration of claims 3-7, 11-14, and 18-21.

The Commissioner is hereby authorized to charge or credit Deposit Account No. 50-0563 for any fees required or overpaid.

Respectfully submitted,

Date: January 31, 2008

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